

भारतीय मानक
गौरान छाल — विशिष्टि
(दूसरा पुनरीक्षण)

Indian Standard
GORAN BARK — SPECIFICATION
(*Second Revision*)

ICS 59.140.10

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Leather, Tanning Materials and Allied Products Sectional Committee had been approved by the Chemical Division Council.

GORAN [*Ceriops decandra* (Griff) Ding Hou Syn. *Ceriops roxburghiana* Arn.] is a shrub or small tree found in the tidal forests of Sundarbans (West Bengal), east coast of India, Tanassirum, Andamans, Sri Lanka and various parts of Malayasia. The bark and the leaves contain high percentage of tannins.

GORAN bark is mostly used in the manufacture of heavy leather such as suitcase leathers, sole leather and some other varieties of leather. When used alone the bark imparts a red colour to the leather. This can be avoided to a large extent by blending it with myrobalans (*Terminalia chebula* Retz.) fruits and the bark of *BABUL* (*Acacia nilotica* Linn.) willd. ex Del Subspindica (Benth) Brenan; also known in the trade as *Acacia arabica* in suitable proportions or by decolourizing and bleaching. A mixture of barks and leaves may be used with advantage, since such a mixture gives a leather of lighter colour and softer texture. *GORAN* bark is also suitable for manufacture of tan extracts. However, proper quality of bark and its collection in large quantities are necessary to make manufacture of extract feasible on a commercial basis. It is hoped that this standard will help tanners in procuring *GORAN* bark of acceptable quality.

This standard was first revised in 1975 to incorporate a clause on keeping quality has been added. In this revision, the requirement on pentachlorophenol (PCP) has been introduced keeping in view of the demand for eco-friendly inputs from the leather industry.

The composition of the Committee responsible for the formulation of this standard is given in Annex B.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

GORAN BARK — SPECIFICATION

(Second Revision)

1 SCOPE

This standard prescribes the requirements and the methods of sampling and test for *GORAN* bark intended for tanning and for the use in the manufacture of tanning extracts.

2 REFERENCES

The following standards contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

<i>IS No.</i>	<i>Title</i>
1640 : 2007	Glossary of terms relating to hides, skins and leather
5466 : 1969	Methods of test for vegetable tanning materials

3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS1640 shall apply.

4 REQUIREMENTS

4.1 Material

The material shall be the bark of *GORAN* plants, *Ceriops decandra* (Griff) Ding Hou Syn. *Ceriops roxburghiana* Arn., properly collected, cut into pieces and dried in shade.

4.2 The material shall also comply with the requirements given in Table 1.

4.3 Keeping Quality

The material, when stored under normal conditions and in original gunny bags, shall continue to satisfy the characteristics prescribed in Table 1 for a minimum period of three months from the date of stripping and collection.

NOTE — Suitable precautions shall be taken during storage to protect the material from high humidity and temperature.

5 PACKING AND MARKING

5.1 Packing

Unless otherwise agreed to between the purchaser and the supplier *GORAN* bark shall be packed in containers

which shall protect the contents from exposure to sunlight as much as possible. Gunny bags have been found suitable.

Table 1 Requirement for *GORAN* Bark
(Clauses 4.2 and 4.3)

Sl No.	Characteristic	Requirement	Method of Test, Ref to Cl of IS 5466
(1)	(2)	(3)	(4)
i)	Moisture, percent by mass, <i>Max</i>	15	6
ii)	Tannins ¹⁾ , percent by mass, <i>Min</i>	22	10
iii)	Non-tannins ¹⁾ , percent by mass, <i>Max</i>	12	9
iv)	pH of analytical strength solution, <i>Min</i>	4.0	12
v)	Colour:		13
	a) Red, <i>Max</i>	35.0	
	b) Yellow/red, <i>Min</i>	0.3	
vi)	PCP content ¹⁾ , mg/kg, <i>Max</i>	5	16

¹⁾ Calculated on moisture-free basis.

5.2 Marking

Packages shall be marked on the outside with the following information:

- a) Name of the material;
- b) Net mass of the material;
- c) Supplier's name or recognized trade-mark, if any; and
- d) Date of packing.

5.2.1 BIS Certification Marking

The packages may also be marked with the Standard Mark.

5.2.1.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standard Act*, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

6 SAMPLING

6.1 Representative samples of the material shall be drawn in accordance with Annex A and their conformity to the requirements of this standard shall be judged as follows.

6.2 Number of Tests

Each test sample shall be tested individually for all the requirements of this standard.

6.3 Criteria for Conformity

The lot shall be declared as conforming to the requirements of this standard, if the test sample passes all the tests.

ANNEX A

(Clause 6.1)

SAMPLING OF GORAN BARK

A-1 SCALE OF SAMPLING

A-1.1 Lot

In a single consignment all *GORAN* bark of the same form of cutting, collected and dried under similar conditions, shall constitute one lot.

A-1.2 For ascertaining the conformity of the material to the requirements of this standard, each lot shall be tested separately. The number of packages to be selected for this purpose shall depend on the size of the lot and shall be in accordance with Table 2.

A-1.3 The packages shall be selected at random from the lot. To ensure randomness of selection, a random number table shall be used. In case random number tables are not available, the following procedure be adopted:

Starting from any package, count all the packages in the lot as 1, 2, 3.. up to r and so on, where r is the integral part of N/n (N being the lot size and n the number of packages to be selected). Every r th container thus counted shall be withdrawn to give the sample for test.

A-2 PREPARATION OF SAMPLES

A-2.1 Contents of each of the packages selected according to **A-1.2** shall be spread upon clean, dry and level floor so as to form a level circular shaped layer. Quarter the pile and repeat this process until about 2 kg of *GORAN* bark is obtained. Large pieces of bark shall be broken up before they are mixed and quartered. When it is inconvenient to spread out the packages, sample shall be taken from different parts of each selected package so as to obtain a representative sample of the package. The samples from each package shall

be mixed carefully, quartered and re-quartered till a 2 kg sample is obtained.

Table 2 Number of Packages to be Sampled
(Clause A-1.2)

Sl No.	No. of Packages in the Lot N	No. of Packages to be Sampled n
(1)	(2)	(3)
i)	Up to 25	3
ii)	26 to 50	4
iii)	51 to 150	5
iv)	151 to 300	6
v)	301 to 500	7
vi)	501 to 1 000	8
vii)	1 001 and above	9

A-2.2 Test Samples

The material obtained in **A-2.1** shall be divided into three equal parts, each forming a test sample representing the lot. One of test samples shall be marked for the purchaser, another for the supplier and the third as referee sample.

A-2.2.1 All the test samples shall be immediately transferred to separate sample containers and shall be sealed airtight and marked with full particulars necessary for proper identification, such as name of the manufacturer or trade-mark, name of sample, batch number, date of sampling, and sampler's name.

A-2.3 Referee Sample

The referee sample consisting of a test sample, shall bear the seal of both the supplier and the purchaser and shall be kept at a place and under conditions as agreed to between the two for use in case of dispute.

ANNEX A*(Foreword)***COMMITTEE COMPOSITION**

Leather, Tanning Materials and Allied Products Sectional Committee, CHD 17

<i>Organization</i>	<i>Representative(s)</i>
Central Leather Research Institute, Chennai	DIRECTOR (Chairman)
A. V. Thomas Leather & Allied Products Pvt Ltd, Chennai	SHRI HABIB HUSSAIN SHRI K. MANIVANNAN (<i>Alternate</i>)
All India Skins & Hide Tanners and Merchants Association, Chennai	SHRI MOHAN M. SREENIVAS SHRI S. MOHAMMED HASSAN (<i>Alternate</i>)
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Bata India Ltd, Hathidah	DR SUDHIR KUMAR DAS
Central Footwear Training Institute, Agra	SHRI S. N. GANGULY SHRI S. CHAKRABORTY (<i>Alternate</i>)
Central Leather Research Institute, Chennai	DR C. MURALIDHARAN
Central Pollution Control Board, Delhi	SHRI T. VENUGOPAL SHRI AJAY AGGARWAL (<i>Alternate</i>)
College of Leather Technology, Kolkata	DR BUDDHADEV CHATTOPADHYAY PROF SWAPAN KUMAR BASU (<i>Alternate</i>)
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Council for Leather Exports, Chennai	SHRI M. M. HASHIM DR ZACKRIA SAIT (<i>Alternate</i>)
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Indian Shoe Federation, Chennai	SHRI RAMESH SUBRAMANIAM SHRI ABHIJIT SETH (<i>Alternate</i>)
Indofil Chemicals Co Ltd, Mumbai	SHRI S. K. JHA
International Institute of Saddlery Technology and Export Management, Kanpur	REPRESENTATIVE
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Khadi & Village Industries Commission, Mumbai	SHRI S. VIJAYA KUMAR SHRI R. LAWRENCE (<i>Alternate</i>)
Kings International Ltd, Kanpur	SHRI TAJ ALAM SHRI G. S. KUMARAN (<i>Alternate</i>)
Leather Chemicals Manufacturers Association, Mumbai	SHRI VADUVUR T. SRIKANTH SHRI SANJEEV MEHTA (<i>Alternate</i>)
Liberty Footwear, Karnal	SHRI ADESH GUPTA SHRI S. S. LAHIRI (<i>Alternate</i>)
Ministry of Commerce, New Delhi	REPRESENTATIVE

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National Institute of Fashion Technology, New Delhi	SHRI E. SIVASAKTHI
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Planning Commission, New Delhi	DR S. C. LAHIRI
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 <i>Member Secretary</i> SHRI E. DEVENDAR Scientist 'F' and Head (CHD), BIS	

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BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002

Telephones : 2323 0131, 2323 3375, 2323 9402

Website: www.bis.org.in

Regional Offices:

Telephones

Central	: Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{ 2323 7617 2323 3841
Eastern	: 1/14 C.I.T. Scheme VII M, V. I. P. Road, Kankurgachi KOLKATA 700054	{ 2337 8499, 2337 8561 2337 8626, 2337 9120
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